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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/552,524

07/20/2006

Dieter Reichel

CBZ-1352

2367

22827 7590 06/18/2009
DORITY & MANNING, P.A.
POST OFFICE BOX 1449
GREENVILLE, SC 29602-1449

EXAMINER

MCCARRY JR, ROBERT J

ART UNIT

PAPER NUMBER

3617

MAIL DATE

DELIVERY MODE

06/18/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/552,524	Applicant(s) REICHEL ET AL.	
	Examiner ROBERT J. MCCARRY JR	Art Unit 3617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 February 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 22-35 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 22-24, 27-35 is/are rejected.
- 7) ☒ Claim(s) 25 and 26 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the corresponding recesses and elevations of the stator packs, which are arranged alternately in a checker-board configuration, as stated in claims 25 and 26 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

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The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 30 and 31 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 30 recites that the tracks are further comprised of a "material gap between adjacent stator packets within said stator section with a width that is different than a width between adjacent said stator packets of different said stator sections." It is unclear to the Examiner as to exactly where the material gap is occurring between the packets and it is further unclear as to how the gap is being measured or compared with other sections.

Claim 31 recites that the "contour and counter-contour profiles of said front and back ends of adjacent stator packets within a said stator section have a different spatial configuration as compared to adjacent stator packets of different said stator sections." It is unclear to the Examiner as to exactly where the different spatial configurations are located on the packets and it is further unclear to the Examiner if the different spatial configurations mean that each stator pack has varying shaped profiles on the end of each section.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 22-24 and 27-35 rejected under 35 U.S.C. 103(a) as being unpatentable over Raschbichler (US 5,370,059) in view of Raschbichler (US 4,665,329).

Raschbichler et al discloses a track for a magnetically levitated vehicle. The rack is comprised of a carrier assembly 1 having downwardly extending support arms 11. Stator assemblies are mounted on the support arms and the carriers by means of bolts threaded through the stator and anchored in the carrier. Each stator has a front and rear end that contours and mates with the ends of an adjacent stator assembly. Two different surfaces are shown on the stators to align them end to end. One stator has a flat rear end and a stepped front end to mate with an opposite stator as shown to the far left of figure 2. This allows for the cog teeth of the stators to continue to be properly spaced. Another stator assembly has a flat front end and a flat rear end as shown on the stator to the right of figure 2. This stator mates with other stator assemblies with like surfaces, again to endure the proper spacing of the cog teeth along the underside of the stator packets.

Raschbichler et al ('590) discloses the stator packs and track elements as described above. However, Raschbichler et al ('590) does not specifically show a series of contours and counter-contours at either end of the stator packet to facilitate the joining of two adjacent stator packets. Raschbichler ('329) discloses a stator packet having a recess 20 at an end of the stator packet. The recess 20 has an upper horizontal surface and a lower horizontal surface, these two surfaces also extend horizontally along the width of the stator and are interpreted to be a longitudinal surface as it extends in the longitudinal direction of the stator packet. The recess also has a

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vertical wall in between the two horizontal surfaces. The vertical surface is interpreted to be transverse to the horizontal surface and also extends the width of the stator. A projecting tooth 21 at the end of an adjacent stator packet is received by the recess 20. The projecting tooth 21 has corresponding horizontal surfaces which mate with the horizontal surfaces of the recess 20 in the longitudinal direction. The projecting tooth 21 also has a vertical surface which mates with the vertical surface of the recess 20, transverse to the longitudinal direction. The surfaces of the projecting tooth also extend the width of the stator packet. The Examiner has interpreted that the mating of the vertical surfaces and horizontal surfaces allow for active horizontal and vertical cogging is established. The Examiner has interpreted active cogging to be the simultaneous overlapping of both the recessed surfaces and the projecting surfaces.

The Examiner has also interpreted that should the stator pack be rotated in a vertical or longitudinal direction, portions of the projecting tooth 21 will engage with portions of the surfaces of the recess 20. While an entire surface of a projecting tooth will not engage an entire surface of the recess, portions thereof will still engage as the structure is rotated. There is also a sufficient overlap of two sections that should the stators be installed along a curve there would still be contact between a portion of the projecting tooth and the recess.

It would have been obvious to one of ordinary skill in the art to have used Raschbichler ('329) as a teaching to show that a stator packets, like that of Raschbichler et al ('059) can be outfitted with a contoured surface with the expected

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result of allowing the stator packets to be better connected and to better secure the parts together to insure that the magnetic energy is consistent through the track.

Allowable Subject Matter

Claims 25 and 26 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

Applicant's arguments filed 02/26/09 have been fully considered but they are not persuasive. Applicant argues that the prior art of Raschbichler ('329) does not show vertical and horizontal active cogging. The Examiner has expanded and explained above that the active cogging has been interpreted as the simultaneous overlapping of the vertical and horizontal surfaces of the recess and the projections on the adjacent stator packets. Applicant also argues claims 25 and 26 regarding the shapes of the projections and recess as having flanks and arranged in a checker board pattern. While not shown in the drawings, as stated above in the objections to the drawings, the Examiner notes that the prior art only shows a projection and recess spanning the width of the stator and does not show elevations or a distinct pattern.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ROBERT J. MCCARRY JR whose telephone number is (571)272-6683. The examiner can normally be reached on Monday through Friday 7:00am to 3:00pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, S. Joseph Morano can be reached on (571) 272-6684. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/S. Joseph Morano/
Supervisory Patent Examiner, Art Unit 3617

/R. J. McCarry Jr./
Examiner, Art Unit 3617

RJM
June 16, 2009